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The Candy Making Industry in Philadelphia

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PRESENTED TO THE
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BY

Whitman's

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The Candy-Making Industry in Philadelphia

By Ellwood B. Chapman

History

WHO would dream as he leaves the confectionery store with the box of chocolates under his arm that the very ends of the earth had been ransacked for these sweets? Good Mother Nature must have given thought to the "sweet tooth" of her children when she stored her larder so abundantly with good things—the sugar cane, the sugar maple, the sugar beet, honey everywhere, the cocoa bean and the hundreds of flavors that add to the toothsome qualities of confectionery: fruits, nuts, vanilla beans, gums, resins and spices.

From the very early ages man seems to have had a taste for sweets; honey was the first sweet substance known. We are all familiar with the Biblical reference, "A land flowing with milk and honey"; even before the Biblical era, crude confections in some form were made by mixing honey with fruits.

Crystallized sugar is now the basis of all confectionery. It has been in use since the early days of the Christian era, the first reference to it appearing 300 A. D.

Sugar cane was first discovered growing wild in India: Arabs and Egyptians in these early days prepared candy by crystallizing sugar from the juice of the cane. It was first introduced into Europe by the Crusaders, who brought it with them from the Holy Land. Sugar was then used principally by apothecaries to disguise the taste of drugs, and it was only about two hundred years ago that the confectionery industry began to develop independently of its medicinal association. The growth of the industry was very slow; it is only within the last half century that it has begun to assume larger proportions.

Early Philadelphia Candy Makers

The earliest mention that is made of a confectioner in Philadelphia was in 1765; Abraham Smith conducted a fruit business at that time and sold a few simple candies. In 1800 an advertisement of Bosse's Ice Cream House, Germantown, appeared in the "Aurora," under date of July 22; syrups, cakes, wines, jellies and a few confections were sold. Irving, in "Salmagundi," in the stranger in Pennsylvania, tells how molasses candy was made in Philadelphia

in 1807. These are the only references that can be found to the trade prior to 1816.

The history of the business in Philadelphia really dates back to this year, just one century ago; prior to 1816 but little is known of the local trade with the exception of the few instances cited. At that date there were published the names of twenty confectioners in this city; the one who seems to have been most prominently known among these was Sebastian Henrion, who was then located at 15 S. 4th Street, afterwards at 118 High Street (Market Street). He retired in 1844, being succeeded by the firm of Henrion & Chauveau: this latter firm continued until 1857. Others who obtained prominence at this time were Paul Lajus, N. E. cor. 3rd & High Streets, afterwards at 86 High Street, and Jeffrey Chew, 262, and later 301, S. 5th Street; the former continued in business until 1841 and the latter until 1848. In 1833 George Miller commenced business and continued until the time of his death.

All of these firms and their successors have disappeared, the only living representative of any of them who is at present identified with the industry is A. J. Chauveau, now engaged in the manufacture of confectioners' novelties. Mr. Chauveau has in his possession what is probably the oldest piece of candy in existence in this country, a piece of conserve made about 1845. Crude though it seems, it doubtless brought joy to the heart of some appreciative maiden.

Piece of candy made about 1845

Fancy paper in which it was wrapped

Prior to 1845 there were few attempts to manufacture high-grade confectionery, the local dealers contenting themselves with molasses candies, stick candies and sugar plums of their own manufacture; the better grades being imported, principally from France. In the early 40's, Sebastian Henrion made the first Cream Chocolates and Jim Crows, the latter, which were quite black, being named after a troupe of colored minstrels then playing.

Firms Engaged in the Industry To-day

Among the names prominently identified with this industry to-day are those of Whitman's, Huyler's, Laurent, Maron and Wilbur. There are also a number of large manufacturers who have no retail stores, but sell their product to the smaller confectioners; among those might be mentioned Croft and Allen, Brandle and Smith Company, E. G. Whitman, Quaker City Chocolate and Confectionery Company, Philip Wunderle, John Miller & Son, Manufacturing Company of America, and Smith and Peters.

Two firms have attracted attention during the last few years through the operation of chain stores for the sale of inexpensive candies; they are Montague and Company, and the Gates Candy Company.

Huyler's factory and principal retail stores are in New York, where they were established in 1874. The firm operates a chain of sixty-one stores throughout the country: these are recognized everywhere by the familiar red curtain, with its inscription familiar to all candy-lovers, "Old-fashioned Molasses Candy, fresh every hour." The Philadelphia store, at 1320 Chestnut Street, was opened in 1886.

The business of Laurent & Maron was started in the year 1850 on 4th Street above Arch, and five years later removed to the N. W. cor. 6th and Arch Streets. Later the partnership was dissolved, and was succeeded by F. Laurent & Sons. In 1878 they removed to 1306 Chestnut, subsequently to 1308 Chestnut, their present location. During building operations in 1909 this firm occupied at different times during the first six months of the year, 1306, 1308 and 1310 Chestnut Street, being closed only two hours during removal.

Alfred Maron continued business alone at 830 Walnut street, and in 1874 succeeded Charles Penas, who came to this country from France in the later 50's. About five years later another store was opened at 1614 Chestnut Street, the two stores being operated together for six years. He died in 1914, being succeeded by his son, A. C. Maron.

Samuel Croft was engaged in retail and jobbing confectionery business prior to 1868. In that year he formed a partnership with H. O. Wilbur, locating at 125 N. 2nd Street. Later this partnership was dissolved and two new firms succeeded them, H. O. Wilbur and Sons taking up the manufacture of cocoa and chocolate at 3rd and New Streets, and Croft and Allen the manufacture of a general line of confectionery in West Philadelphia.

CANDY BOX OF 1854

The most remarkable evidence of the growth of confectionery industry in Philadelphia is the business of Whitman's, established in 1842 by Stephen F. Whitman. It outgrew its quarters and was removed in the early 60's to 1210 Market. After several other changes in location, the continued increase in output necessitated still larger quarters. In 1889 the business was therefore divided, the factory being removed to 6th and Cherry Streets, and the retail store to its present location at 1316 Chestnut Street. In 1906 the factory was removed to the large building, 411 to 421 Race Street, and with still further recent additions it now occupies the entire block on Race Street from 4th Street to Lawrence Street.

To this firm is due the credit for the first attempt to pack confectionery in boxes; this was in 1854, and from this small beginning has developed the wonderful system of to-day, candies being now packed in the most artistic manner in handsome boxes, some of which contain as much as ten pounds.

SIZE OF INDUSTRY AND PRESENT IMPORTANCE

Some idea may be gained of the rapid strides which the industry has made in Philadelphia within recent years when it is stated that from the twenty small stores in 1816, with their very limited

production, it had grown in 1915 to 131 establishments, none with less than five employees, and from a volume of $766,000 in 1860 it had increased to $7,398,651 in 1915.

PROCESS

To trace the contents of a box of confections back to the sources of their ingredients, and then to follow, step by step, their shipment, their assembling and the various processes through which they go in the course of their manufacture, would require volumes. For our purpose here it will suffice to describe briefly the making of two or three typical pieces.

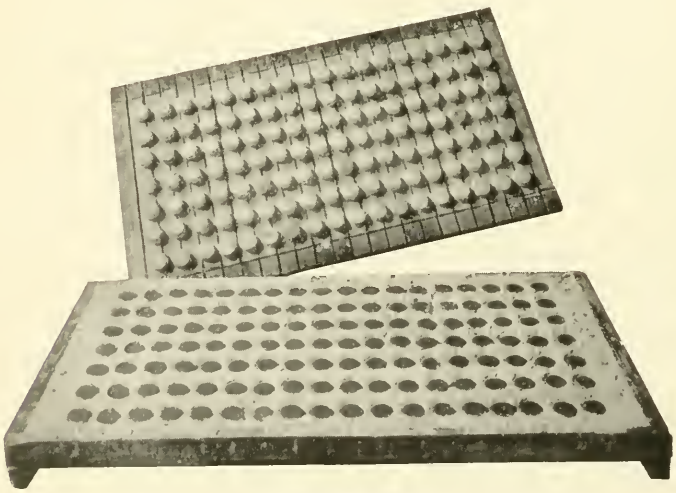
MAKING CREAM CHOCOLATES

Every one is familiar with the Cream Chocolate, which was one of the first to be made, but few could imagine the steps that are required to bring it to perfection. In the first place, to make the center, a quantity of sugar is placed in a large copper pan and sufficient water added to enable it to be melted quickly over heat; after the sugar is dissolved, the process of boiling is continued for a sufficient length of time to evaporate a great deal of the excess water. When this is made in quantities of not over thirty or forty pounds, it is cooked in a shallow copper pan, about twenty-four inches in diameter, and during the process of boiling is stirred with a large wooden paddle. In the larger factories of to-day this process is mechanical, the copper pans being made of sufficient size to contain a whole barrel of sugar, and the stirring being done by rows of paddles attached to a power-driven axle in the center of the kettle.

When the process of boiling as above described is ended, a heavy syrup is obtained. This is poured while still hot on a large cast-iron table, about five to six feet in diameter, with an edge about six inches high. This table is made with double walls, and is cooled by means of water circulating between the inner and outer wall. As the syrup cools gradually it is kept constantly in motion by pieces of iron, shaped somewhat similar to a plow-share, which are attached to arms driven from the center of the table and kept constantly revolving. This constant agitation prevents the formation of large crystals of sugar, so that when the syrup is cooled and hardened and the process of crystallization has been completed the crystals are so minute as to be hardly noticeable. The heavy, viscous mass which results gives a soft, smooth feeling on the tongue when tasted, and hence derives its common name, "Cream." Under the old-fashioned methods, when cream was made in small

quantities, it was poured on a large slab of marble hollowed out in the center, and while cooling was worked up by hand, two men standing on opposite sides of the marble slab, using large wooden paddles for this purpose.

The next operation is the molding of this Cream into the proper shapes, to be covered with Chocolate. This is done in powdered starch: a shallow wooden tray is filled with very finely powdered corn-starch, which is leveled flush with the sides of the tray. A printing frame, consisting of a board to which are attached a number of rows of wooden molds, each one the size and shape of the cream center, is pressed firmly into the starch, and when withdrawn it leaves a number of depressions, in which the cream is to be molded. The cream is then melted, flavored with vanilla or other flavors, and poured into the depressions in the starch by means of a funnel; the mouth of the funnel is closed by means of a short stick, which fits it closely. The candy maker moves rapidly from one depression to the next, allowing a small quantity of cream to flow into each depression by alternately opening and closing the end of the funnel. This is known as casting.

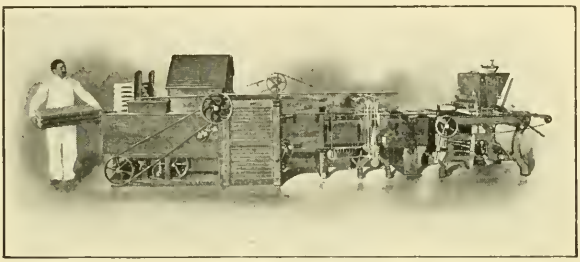


STARCH-BOARD
Containing 126 cream centers. Printing frame above

Some casters, after years of experience, become so expert that they can mold row after row of these cream centers as fast as it is possible to move the funnel from one depression to the next. These trays, when filled, are laid aside in tiers for several hours to allow the cream to cool and become sufficiently firm for handling.

The Mogul Machine

One of the greatest strides in the making of confectionery was the introduction, a number of years ago, of a machine known as the Mogul, which performs mechanically this operation of casting; one machine, attended by three men, being able to do the work formerly done by twelve to fifteen men. In one end of this machine the starch boards filled with the molded creams are placed, one at a time. They are then automatically emptied, the starch



THE MOGUL
For refilling and leveling trays, molding and casting. This machine empties the starch-boards, refills and levels them, then prints the starch, making molds in it, and fills these molds with sugar cream

being separated from the creams and the latter delivered at one side of the machine. After this the starch is sifted through fine sieves to remove any small particles of sugar, and the board, which has been emptied, is refilled with starch, the top leveled, and delivered on an endless belt for the operation of printing and casting.

As the starch tray moves along the endless belt, a printing board similar to the one described in the hand operation is pressed down upon it automatically, leaving row after row of depressions. It then moves one step further, coming directly underneath a large copper tank filled with melted cream, which is kept at the proper temperature by means of a steam-jacket. From the bottom of this tank extends a long row of tubes, each one directly above one of the depressions in the starch. Each of these tubes is fitted with a tiny pump, which, as the starch board moves under, automatically delivers a measured amount of the melted cream. The tray is then pushed a few inches further and another row filled. When the last row has been filled the tray is removed from the machine by the attendant and the next tray appears, ready to be filled in the same way. The cream centers, which have been separated from the starch, are then sent in large trays to the Chocolate Coating room.

CHOCOLATE COATING

The original method of chocolate coating, and one which is still in use for the finest grades of work, is entirely a hand process. The table for chocolate coating consists of a large square marble slab, accommodating four girls, one on each side. In the center is a kettle of chocolate, warmed by steam or electricity to a sufficient temperature to keep it soft. A small quantity of this chocolate is

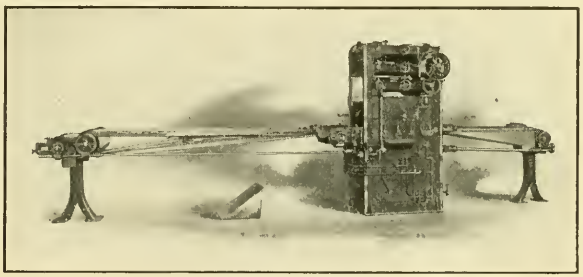
CHOCOLATE-COATING MARBLE
Twenty-five of these, each accommodating four girls, are placed in rows in the room

ladled from the kettle and poured on the surface of the slab to cool. The operator watches this cooling process very closely, and when the correct temperature has been reached, which is determined simply by her delicate sense of touch, the cream is rolled in it until it is covered to a sufficient thickness. It is then placed on a tray to

harden. This operation requires an unusual degree of skill, for if the temperature is slightly high and the coating too soft, it will flow from the cream, leaving a very thin covering at the top and a very heavy "foot" at the bottom. On the other hand, if the coating is too cool when the operation is performed, the resultant chocolate will be rough and irregular, instead of leaving the smooth, glossy appearance which is so much desired.

The process of stamping the manufacturer's name on the bottom of each chocolate is accomplished simply by placing each finished piece, while still warm and soft, on tins or heavy papers having the name embossed on them at intervals.

Another great stride in the manufacture of confectionery has been made in chocolate coating. The machine which accomplishes this is called the Enrober. In this process the centers are placed in



THE ENROBER
For coating chocolates

rows on a moving belt, which carries them to the machine. Here they encounter a short belt of wire mesh, through which soft chocolate is being forced from underneath. As they pass over this, a coating of chocolate is applied to the bottom of each piece. The cream centers, thus coated, then move automatically to a third belt, which carries them to the next operation. They pass over a short section of wire mesh belting, above which is suspended a tank of chocolate coating kept warm by means of a steam-jacket. From the bottom of this tank a thin sheet of the chocolate flows continuously, coating the tops and sides of the creams as they pass under. The surplus coating flows through the wire mesh into a pan beneath, from which it is automatically pumped again to the suspended tank. The finished chocolates then pass on to a fifth belt, to which are attached, at intervals, sheets of heavily waxed paper. As each of these is filled, it is removed by an attendant, placed in tiers on a movable truck, and carried to a cool room for the chocolate to harden.

While the Enrober does excellent work, it is impossible to obtain the same degree of fineness and regularity as in handwork, and it is for this reason that the old method is still used for the finest grades of chocolates.

The methods just described are typical of the manufacture of a large proportion of the goods which enter into the confectioner's assortment; the variety of chocolates being obtained by substituting nuts, fruits, jellies, caramels, marshmallows, etc., for the cream centers first described.

THE MANUFACTURE OF CHOCOLATE COATING

The process of the manufacture of the chocolate coating itself is interesting and may be described quite briefly. Chocolate is obtained from the cocoa bean, the varieties most used being grown principally in South and Central America, the West Indies, Ceylon and Africa. These vary greatly in flavor, aroma and strength. To obtain the best results, various grades are combined, very much as is done with coffees. The pods in which the beans grow are about the size of a cocoanut, but they are removed from these pods before being shipped. When received by the confectioner they are first placed in huge revolving ovens over a slow fire and roasted to such a point as will bring out to the fullest extent the delightful aroma of chocolate. They are then coarsely ground, the hulls being separated from the bean itself. These broken beans, or nibs, as they are called, are then taken to the milling machine, in which they are ground very fine by being passed successively under heavy mills of stone or iron, somewhat similar to those used in the grinding of flour. Considerable heat is generated in this process, and the resultant mass is a brownish liquid of the consistency of molasses, known as "chocolate liquor." This is really a mixture of dry cocoa and the oil from the bean, which is known as cocoa butter. The cocoa is separated from the butter by means of a hydraulic press; when finely powdered, it forms the basis of the beverage now in such extensive use.

The chocolate liquor, above described, is mixed with powdered sugar and a small additional portion of cocoa butter in the melanger, then run repeatedly between heavy steel rolls to crush still further the fine particles in order to obtain the smoothness which is so much prized. In fine confectionery the chocolate is subjected to this process as high as sixteen to twenty times. It is these many operations, carried on with the greatest degree of care by skilful and high-priced workmen, that account for the difference in price between the choice grades of confectionery and those sold at lower prices.

THE JORDAN ALMOND

Another interesting piece is the Jordan Almond. Who would think that nearly a full day is required to make the simple sugar-coated almond, with its smooth, hard covering?

For this process a large revolving copper kettle is used, the outside encircled by steampipes; this is known as a "basin." The basin resembles a huge hollow cone, lying on one side, with the base, which is open, turned up. The cone is pivoted at its apex, thus revolving in nearly a horizontal plane.

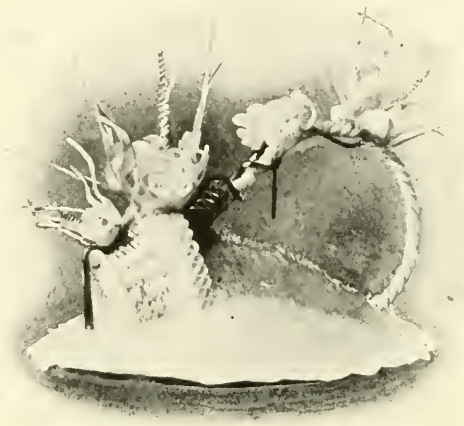
MAKING JORDAN ALMONDS
Long rows of these basins face one another, the operator working between them. This shows only one row

As the great basins start to revolve, one hundred pounds of almonds, thoroughly dry, are placed in each and steam is turned into the pipes. When the nuts are well heated, a ladle of hot syrup (sugar dissolved in water) is poured over them. The rotary motion of the basin causes the almonds to tumble over and over one another, thus distributing the syrup till each is covered with a thin film, about 1-500th of an inch in thickness. When this is dry and hard,

another ladle of syrup is added and then another, until slowly and laboriously the shell of sugar attains the desired thickness. The better grades have a comparatively thin coat, the cheaper ones much thicker. The various flavors and tints are obtained by adding, at the end, a ladle of colored and flavored syrup.

DECORATIVE CANDY

While machinery is used in almost every process of candy manufacture, there is one field in which it cannot compete with hand-made goods. This is the production of exquisite, hand-made pieces for decorating the dinner tables at banquets and state occasions.



DECORATIVE BASKET
Made entirely of Hard Candy

The basket shown in the illustration was made by one of the leading Philadelphia confectioners. It represents hours of tedious work by two expert candymakers, being made of hard candy, worked while hot and soft into the desired shape. The basket is woven of long strands, about one-quarter of an inch in diameter. The flowers are built up petal by petal, each piece being deftly formed by itself and then fastened to the stem. The basket itself is filled with spun sugar, fine hairlike strands, in one soft mass, and in this are placed the fruits or ices to be served for dessert.

DISTRIBUTION

In the confectionery business there are two very widely different means of distribution.

In the first, the various kinds of chocolates and other candies are handled in bulk, being packed in five-pound boxes, or sometimes in pails. These are handled just like wheat or any other commodity, and the identity of the manufacturer is lost before it reaches the consumer. They are generally sold through jobbers to the smaller retail confectioners, who market them as their own goods, in connection with certain lines which they themselves may manufacture. This method of distribution applies principally to the cheaper grades of candy, and also to those kinds which require a large plant and extensive equipment for their manufacture, such as chocolate coating, marshmallows, gum drops and pastes. In most instances, even the smallest confectioners manufacture the simpler goods, such as stick candy, molasses taffies, etc., and a great many get up their own lines of chocolates by making the centers and purchasing the chocolate coating with which to cover them.

In the second method of distribution the goods are packed by the manufacturer himself in small boxes of varying sizes suitable for retail consumption, and in many instances in small cartons, retailing from five to twenty-five cents. These, too, are sold in some instances through jobbers, but in the case of higher-priced goods they are usually sent direct from the manufacturer to his retail agent. In this way it is possible to handle, even at a distance, many perishable goods which otherwise could be sold only at the place of manufacture. To the firm of Whitman's belongs the credit for having been the first to pack confectionery in attractive boxes for widespread distribution. These are now shipped to all parts of the country, from Maine to Alaska, as well as to our insular possessions.

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